

BULLETIN OF ZOOLOGICAL NOMENCLATURE

Volume 67, part 4 (pp. 269–366)

20 December 2010

Notices

(1) Applications and correspondence relating to applications to the Commission should be sent to the Executive Secretary at the address given on the inside of the front cover and on the Commission website. English is the official language of the *Bulletin*. Please take careful note of instructions to authors (present in a one or two page form in each volume and available online (at <http://iczn.org/content/guidelines-case-preparation>) as incorrectly formatted applications will be returned to authors for revision. The Commission's Secretariat will answer general nomenclatural (as opposed to purely taxonomic) enquiries and assist with the formulation of applications and, as far as it can, check the main nomenclatural references in applications. Correspondence should be sent by e-mail to 'iczn@nhm.ac.uk' where possible.

(2) The Commission votes on applications eight months after they have been published, although this period is normally extended to enable comments to be submitted. Comments for publication relating to applications (either in support or against, or offering alternative solutions) should be submitted as soon as possible. Comments may be edited (see instructions for submission of comments at <http://iczn.org/content/instructions-comments>).

(3) Requests for help and advice on the Code can be made direct to the Commission and other interested parties via the Internet. Membership of the Commission's Discussion List is free of charge. You can subscribe and find out more about the list at <http://list.afriherp.org/mailman/listinfo/iczn-list>.

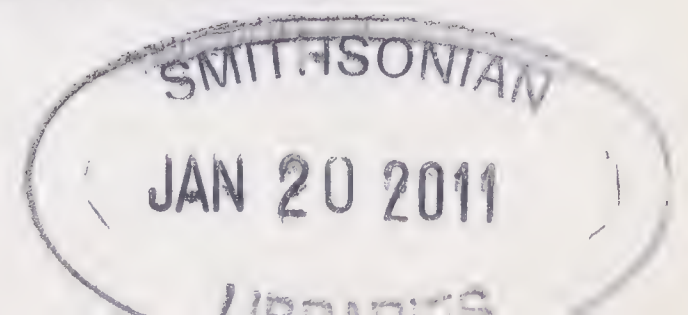
(4) The Commission also welcomes the submission of general-interest articles on nomenclatural themes or nomenclatural notes on particular issues. These may deal with taxonomy, but should be mainly nomenclatural in content. Articles and notes should be sent to the Executive Secretary.

New applications to the Commission

The following new applications have been received since the last issue of the *Bulletin* (volume 67, part 3, 30 September 2010) went to press. Under Article 82 of the Code, the existing usage of names in the applications is to be maintained until the Commission's rulings on the applications (the Opinions) have been published.

CASE 3534: *Terebella infundibulum* Renier in Meneghini, 1847 (currently *Myxicola infundibulum*; Annelida, Polychaeta): proposed conservation of the specific name. A.I. Muir & M.E. Petersen.

CASE 3535: *Nereis coccinea* Renier in Meneghini, 1847 (currently *Lumbrineris coccinea*) and *Thalassema scutatum* Renier in Ranzani, 1817 (currently *Sternaspis scutata*; Annelida, Polychaeta): attribution of authorship. A.I. Muir & M.E. Petersen.



CASE 3536: *Stegosaurus* Marsh, 1877 (Dinosauria, Ornithischia): proposed designation of *Stegosaurus stenops* Marsh, 1887 as the type species. P.M. Galton.

CASE 3537: ATHETINI Casey, 1910 and GEOSTIBINA Seevers, 1978 (Insecta, Coleoptera, STAPHYLINIDAE, ALEOCHARINAE): proposed conservation. V.I. Gusarov.

CASE 3538: CORYNINAE Benson, 1938 (Insecta, Hymenoptera, CIMBICIDAE): proposed emendation of spelling to CORYNISINAE to remove homonymy with CORYNIDAE Johnston, 1836 (Cnidaria, Anthoathecata). S.M. Blank & M. Forshage.

CASE 3539: *Sturmia* Robineau-Desvoidy, 1830, *Senometopia* Macquart, 1834 and *Drino* Robineau-Desvoidy, 1863 (Insecta, Diptera, TACHINIDAE): proposed conservation of usage. J.E. O'Hara & N.L. Evenhuis.

CASE 3540: AMPHIPORIDAE Rukhin, 1938 (Porifera, Amphiporida) and AMPHIPORIDAE McIntosh, 1873 (Nemertea, Hoplonemertea): proposed removal of homonymy. H. Özdikmen & H. Demir.

CASE 3541: Replacement of the family-group name METINAE Simon, 1894 (Arachnida, Araneae, TETRAGNATHIDAE), currently in homonymy with METIDAE Boeck, 1872 (Crustacea, Copepoda). F. Álvarez-Padilla & G. Hormiga.

CASE 3542: *Trachelus* Jurine, 1807 (Hymenoptera, CEPHIDAE): proposed precedence over *Astatus* Panzer [1801]. S.M. Blank & A. Taeger.

Page charges – new policy

The costs of publishing the BZN now require us to request page charges of £30 per page for all Cases, General Articles and Comments that are one full printed page or longer. We do not want to discourage contributions to the work of the Commission, thus a waiver is available for authors who are unable to pay. A waiver form is available on the ICZN website and should be signed by you, provide contact information for your head of department if you are in a professional position, and include a brief explanation of why you are unable to help support publication costs. Examples of appropriate waiver considerations include authors in unwaged positions or in countries with currency exchange difficulties. If a waiver is not received and approved at the time of acceptance of your contribution for publication, you will be sent an invoice for your page costs. Payment can be accepted by PayPal, credit card or cheque.

ZooBank Progress Report

Frank-T. Krell (Chair ZooBank Committee)

Department of Zoology, Denver Museum of Nature & Science, Denver, Colorado, U.S.A. (e-mail: Frank.Krell@dmns.org)

Richard L. Pyle (ZooBank Developer)

Department of Natural Sciences, Bishop Museum, Honolulu, Hawaii, U.S.A. (e-mail: deepreef@bishopmuseum.org)

Less than three years after the idea of an authoritative registry for all animal names under responsibility of the ICZN was presented in *Nature* (Polaszek et al., 2005) and during a symposium at the 2005 Annual Meeting of the Entomological Society of America (Krell & Polaszek, 2006), a prototype of ZooBank was released on 1 January 2008 (Pyle & Michel, 2008, 2010), which included 4,819 retrospectively registered names established by Linnaeus in *Systema Naturae* (1758), as well as five prospectively registered names established in Pyle et al. (2008). Since then the ZooBank Registry has grown to include 29,392 published works authored by 11,802 authors, containing 73,245 nomenclatural acts.

At the 2008 ICZN meeting at the International Congress of Zoology in Paris, a ZooBank Committee was formed and put in charge of the development and implementation of ZooBank (Anonymous, 2008). Currently, the ZooBank Committee consists of 30 members from 14 countries. Twenty members are ICZN Commissioners, nine are external experts, and the ICZN Executive Secretary is a member ex officio:

Donat Agosti, *Plazi, Bern, Switzerland*

Miguel A. Alonso-Zarazaga, *Museo Nacional de Ciencias Naturales, Madrid, Spain*

Alberto Ballerio, *Brescia, Italy*

Stan Blum, *California Academy of Sciences, San Francisco, U.S.A.*

Nina G. Bogutskaya, *Zoological Institute, St. Petersburg, Russia*

Denis J. Brothers, *University of KwaZulu-Natal, Scottsville, South Africa*

Edward C. Dickinson, *Eastbourne, U.K.*

Daphne G. Fautin, *University of Kansas, Lawrence, U.S.A.*

R. Bruce Halliday, *CSIRO Entomology, Canberra, Australia*

Mark S. Harvey, *Western Australian Museum, Welshpool, Australia*

Paul Kirk, *Centre for Agricultural Bioscience International, Egham, U.K.*

Maurice Kottelat, *Cornol, Switzerland*

Frank-T. Krell (Chair), *Denver Museum of Nature & Science, Denver, U.S.A.*

Sven O. Kullander, *Naturhistoriska Riksmuseet, Stockholm, Sweden*

Susan Lim, *University of Malaya, Kuala Lumpur, Malaysia*

Chris H.C. Lyal, *The Natural History Museum, London, U.K.*

Ellinor Michel, *ICZN, London, U.K.*

Thomas Pape, *Natural History Museum of Denmark, Copenhagen, Denmark*

David J. Patterson, *Marine Biological Laboratory, Woods Hole, U.S.A.*

Andrew Polaszek, *The Natural History Museum, London, U.K.*

Richard L. Pyle, *Bishop Museum, Honolulu, U.S.A.*

David Remsen, *Global Biodiversity Information Facility Secretariat, Copenhagen, Denmark*

Gary Rosenberg, *Academy of Natural Sciences, Philadelphia, U.S.A.*

Michael T. Schmitt, *Universität Greifswald, Germany*

Jan van Tol, *National Museum of Natural History Naturalis, Leiden, The Netherlands*

Judith E. Winston, *Virginia Museum of Natural History, Martinsville, U.S.A.*

Doug Yanega, *University of California, Riverside, U.S.A.*

Yde de Jong, *Zoological Museum Amsterdam, Amsterdam, The Netherlands*

Zhi-Qiang Zhang, *New Zealand Arthropod Collection, Auckland, New Zealand*

Hong-zhang Zhou, *Institute of Zoology CAS, Beijing, China*

To continue to refine the development of ZooBank as a user-friendly, comprehensive service with a fail-safe registration interface, two major steps needed to take place:

- (1) Formal policies and guidelines for the registration of authors, published works, nomenclatural acts (including new names), and type specimens needed to be drafted.
- (2) Funding for the further development of the ZooBank database and user interface had to be obtained.

ZooBank Policies

The first task of the ZooBank Committee was to determine how we should establish our guidelines (policies) in a transparent and democratic way. The first policy, regulating how we establish policies, was ratified on 27 July 2010 after public discussion in 2009, Committee vote in 2009, discussion and vote of the whole Commission, and vote by the ICZN Council on the final version. This ZooBank Policy 001 is published at the end of this report.

- To organise the workload, the following working groups have been established:
- ZooBank architecture (Pyle [Leader], Agosti, Blum, Fautin, de Jong, Kirk, Patterson, Remsen)
 - ZooBank users (Krell [L], Fautin, Pyle)
 - Registration of new names (Agosti [L], Ballerio, Brothers, Halliday, Harvey, Lim, Lyal, Remsen, Winston, Yanega)
 - Registration of substitute names (Halliday [L], Dickinson, Pape, Pyle)
 - Registration of lectotypifications (Brothers [L], Bogutskaya, Lyal, Pape, Winston)
 - Registration of neotypifications (Brothers [L], Bogutskaya, Lyal, Pape, Winston)
 - Registration of first reviser actions (Dickinson [L], Brothers, Halliday, Lim, Lyal, Pape, Schmitt, Winston, Yanega)
 - Registration of emendations and secondary spellings (Pape [L], Dickinson, Halliday, Yanega)
 - Registration of Official Lists (Alonso-Zarazaga [L], Fautin, Lyal, Schmitt)

- Registration of authors and works (Schmitt and Winston [L], Bogutskaya, Krell, Kullander, Lim, Pyle, Zhou).

Working groups on the registration of types and type localities, registration before publication, and the differences between prospective and retrospective registration will be established soon.

In addition to the policy teams, a working group explores the protection of the name ZooBank and securing the relevant domain names (Dickinson, Ballerio, Michel).

The policies will guide the development of the ZooBank database and user interface, and help to identify Code Articles that need attention in respect to registration or general clarification. Drafts of most policies on registration have been submitted to the Committee Chair.

Funding for ZooBank development

Initial development of ZooBank was supported in part by two grants from the Global Biodiversity Information Facility (GBIF) and support from the Pacific Basin Information Node (PBIN) of the U.S. National Biological Information Infrastructure (NBII). Further development for ZooBank over the next three years will be supported in part by a grant from the U.S. National Science Foundation (DBI-0965415; US\$315,899), which itself is part of a US\$1.8M collaborative project to develop an electronic tagging and tracking system for biodiversity science collections. A significant portion of this grant is to develop and integrate components of the Global Names Architecture (GNA) into the tagging and tracking infrastructure. The GNA will become an open-access infrastructure designed to cross-link biodiversity data through scientific names (Patterson et al., 2010). A major part of the GNA is the Global Names Usage Bank (GNUB), a shared data index of 'Taxon Name Usage' (TNU) instances as they appear in published works and other documentation sources. TNU instances are the universal unit of all of taxonomy, representing the foundation for all assertions about how taxon names are used. A critical subset of the total universe of TNU instances are those particular instances that represent Code-governed nomenclatural acts. These include both the establishment of new taxon names in accordance with the Code, as well as subsequent Code-governed nomenclatural acts that have nomenclatural bearing on the use of scientific names. As such, the highest priority for developing the GNUB is to represent all of the TNU instances that relate to Code-governed nomenclatural acts (including the establishment of new names), as well as the associated published works. The data model for GNUB is based on the data model developed for ZooBank. Indeed, the structure of GNUB was designed specifically to accommodate the data needs of ZooBank and other major nomenclators, such as Index Fungorum. The current vision for ZooBank is that it will operate as a nomenclatural registration and validation service that operates on top of the GNUB database, and will form a core component of the GNA (Pyle & Michel, 2009). Most of the actual data behind ZooBank will reside in the GNUB. As such, the development of GNA/GNUB through support from this NSF award represents a major advancement to the overall development of ZooBank. Additional support for development of the GNA (and ZooBank) is currently being sought.

Timeline

At an internal ZooBank meeting at the Denver Museum of Nature & Science on 6–7 May 2010, we decided a timeline of milestones that would allow ZooBank to be available in time to serve its role as registry as proposed in the Amendment on electronic publications (ICZN, 2008):

- December 2010 – Presentation of relevant ZooBank policies for public input via website and listservers; migration of ZooBank from existing data model to GNUB data model;
- March 2011 – ZooBank policies sent for vote to the ICZN; ZooBank user interface ready for review by Commission;
- April 2011 – ZooBank policies ratified and published on ZooBank webpage;
- May 2011 – ZooBank release for Commission use;
- July 2011 – ZooBank release to public;
- October 2011 – press deadline for policies to be published in final form in December BZN.

Outlook

In a rapidly changing research and publishing environment with electronic communication gaining a dominant role, ZooBank will be providing a stable, authoritative reference and archive for nomenclatural information (Krell, 2009). To ensure the appropriate functionality of ZooBank, the ZooBank Committee encourages the zoological community to follow and join the ongoing discussions about ZooBank procedures and policies. Email listservers such as Taxacom, iczn-list and Zoobank-list provide the forums for these discussions. Your input will help to ensure that ZooBank will provide the best possible service to the user community.

References

- Anonymous.** 2008. International Commission on Zoological Nomenclature, Special Session of the Commission – Paris, France, Saturday 23–Monday 25 August 2008. *Bulletin of Zoological Nomenclature*, **65**: 248–260.
- ICZN (International Commission on Zoological Nomenclature)** 2008. Proposed amendment of Articles 8, 9, 10, 21 and 78 of the International Code of Zoological Nomenclature to expand and refine methods of publication. *Bulletin of Zoological Nomenclature*, **65**: 265–275 (<http://iczn.org/content/availability-electronic-publication>).
- Krell, F.-T.** 2009. ZooBank and the next edition of the Code – challenges and new developments in the 250th year of zoological nomenclature. *Aquatic Insects*, **31**(Suppl. 1): 269–282.
- Krell, F.-T. & Polaszek, A.** 2006. Report on the ZooBank Symposium: ESA Annual Meeting, Fort Lauderdale, Florida, 18 December 2005. *Bulletin of Zoological Nomenclature*, **63**: 6–7. (http://www.nhm.ac.uk/hosted_sites/iczn/Fort_Lauderdale_ZB_Symposium.htm).
- Patterson, D.J., Cooper, J., Kirk, P.M., Pyle, R.L. & Remsen, D.P.** 2010. Names are key to the big new biology. *Trends in Ecology and Evolution*, **25**(12): 686–691.
- Polaszek, A., Agosti, D., Alonso-Zarazaga, M., Beccaloni, G., Place Bjørn, P. de, Bouchet, P., Brothers, D.J., Earl of Cranbrook, Evenhuis, N., Godfray, H.C.J., Johnson, N.F., Krell, F.-T., Lipscomb, D., Lyal, C.H.C., Mace, G., Mawatari, S., Miller, S.E., Minelli, A., Morris, S., Ng, P.K.L., Patterson, D.J., Pyle, R.L., Robinson, N., Rogo, L., Taverne, J., Thompson, F.C., Tol, J. van, Wheeler, Q.D. & Wilson, E.O.** 2005. A universal register for animal names. *Nature*, **437**: 477 (http://www.iczn.org/Nature_Commentary.pdf).

- Pyle, R.L., Earle, J.L. & Greene, B.D. 2008. Five new species of the damselfish genus *Chromis* (Perciformes: Labroidei: Pomacentridae) from deep coral reefs in the tropical western Pacific. *Zootaxa*, **1671**: 3–31 (<http://www.mapress.com/zootaxa/2008/f/zt01671p031.pdf>).
- Pyle, R.L. & Michel, E. 2008. ZooBank: Developing a nomenclatural tool for unifying 250 years of biological Information. *Zootaxa*, **1950**: 39–50 (<http://www.mapress.com/zootaxa/2008/f/zt01950p050.pdf>).
- Pyle, R. & Michel, E. 2009. Unifying nomenclature: ZooBank and Global Names Usage Bank. *Bulletin of Zoological Nomenclature*, **66**: 298 (http://www.nhm.ac.uk/hosted_sites/iczn/BZN%2066%284%29_Unifying_nomenclature.pdf).
- Pyle, R.L. & Michel, E. 2010. ZooBank, reviewing the first year and preparing for the next 250. Pp. 173–184 in Polaszek, A. (Ed.), *Systema Naturae 250. The Linnaean Ark*. CRC Press, Boca Raton.
-

ZooBank Policy

Title: Drafting and Ratification of ZooBank Policies

Policy Number: 001

Author(s): Richard L. Pyle

Status: DRAFT-V5

Date Review Completed: 29 October 2009

Date Recommended: 02 November 2009

Date Ratified: 27 July 2010

Effective Date: 28 July 2010

I. PURPOSE

This document defines the process for establishing ZooBank Policies.

II. POLICY

The ZooBank Committee (ZBC), as officially designated by the International Commission on Zoological Nomenclature (ICZN), shall draft a series of Policies that define the purpose, scope and function of the ZooBank online registry. Such Policies will be open for public review and presented to the ICZN for ratification. Upon ratification, the Policy will take effect as of the specified 'Effective Date' (which may be retroactive), and will thus become official ZooBank Policy, under the authority of the ICZN.

III. PROCEDURES

A. DRAFT POLICIES

1. Proposal of Policies

Any current member or group of members of the ZBC may propose a new ZooBank Policy. Suggestions for a new Policy by an individual who is not a member of the ZBC must be presented in collaboration with at least one ZBC member. New Policy proposals should be presented to the official ZBC email discussion list for informal comment and review.

2. Draft Policy Preparation

Pending initial comment and review by the ZBC, the original proposing ZBC members and/or other ZBC members may, at their own discretion, create a formal

draft Policy for submission and review by the ZBC and general public. The draft Policy should be created as an electronic document, following the standard ZooBank Policy template, and should include the following information:

- (i) **Title.** A short, descriptive title that succinctly but accurately characterizes the intended scope of the Policy.
- (ii) **Purpose.** A brief statement about the intended purpose of the Policy, specifying how it contributes to the purpose, scope, and/or function of ZooBank.
- (iii) **Policy.** A statement that describes the Policy in full, written as an overview that encompasses all main components of the Policy.
- (iv) **Procedures.** A detailed description, in outline form, of how the Policy is to be implemented.

3. Draft Policy Initial Review

The draft Policy shall be submitted to the ZBC for an initial review period, not to exceed 30 days. The ZBC members shall comment on specific aspects of the wording of the Policy, and discuss implementation details, possible unintended consequences, and any other implications the Policy may have for the successful functioning of ZooBank. If >50% of ZBC members responding to the Initial Review and expressing an opinion about public review are in favor of such review, the draft Policy shall be posted for public review on the ZooBank website.

4. Draft Policy Public Review

When a Policy has been posted for public review on the ZooBank website, announcements of the posting shall be made by the ZBC Chair or designated ZBC representative to appropriate email discussion groups, including (at minimum) the public ZooBank email list. The public review period shall be 30 days, unless the deadline for public review is extended by the ZBC Chair to allow time for additional commentary.

5. Draft Policy Recommendation

At the end of the public review period the Chair of the ZBC shall call for a vote by the ZBC members as to whether the draft Policy, as written and revised based on public commentary, should be recommended for approval by the ICZN. The deadline for vote submission shall be set for 30 days after the call for votes, and the vote shall be deemed valid either when at least two-thirds of ZBC members have voted in favor, when more than one-third of ZBC members have voted to oppose, or when all ZBC members have either cast a vote, explicitly abstained, or indicated an inability or unwillingness to vote. Only votes explicitly in favor or opposed shall be considered when calculating the percentage results.

- (i) **Approved.** If at least two-thirds of the votes received within the voting period are in favor, the draft Policy shall be forwarded to the ICZN for voting under the one-month rule as described in the Bylaws. Once ratified, the Policy shall be assigned an 'Effective Date' (i.e. the date on which the Policy officially goes into effect, which may be retroactive), and assigned a Policy Number. The Policy Number will be one more than that of the previously ratified Policy.

- (ii) **Declined.** If less than two-thirds of the votes received within the voting period are in favor, the draft Policy shall not be forwarded to the ICZN for ratification. If more than half (but fewer than two-thirds) of votes received within the voting period are in favour, review and discussion may continue (at the discretion of existing ZBC members) to further refine the draft Policy until such time as the Chair of the ZBC calls for another vote, which shall be conducted following the same procedures as the first vote. If the second vote is inconclusive the proposed Policy fails.

B. AMENDMENT OF RATIFIED POLICIES

Existing ZooBank Policies that have been ratified by the ICZN may be amended following the same procedures described above for Draft Policies, with the following additional aspects:

1. Proposal of Policy Amendment

Upon proposing the amended Policy to the ZBC, the proposing ZBC member(s) shall state the number of the existing Policy that is proposed to be amended.

2. Draft Policy Amendment Preparation

The Draft Policy Amendment may include alterations to the Title, Effective Date, Purpose, Policy, or Procedures of the existing ZooBank Policy.

3. Draft Policy Amendment Initial Review

In their deliberations of the Draft Policy Amendment, the ZBC members shall consider the implications of modifying an existing Policy on existing ZooBank registrations, and what effect (if any) such modifications might have on nomenclatural stability. If needed, the ZBC may also stipulate the disposition and status of the amended Policy during the period when the amendment is under consideration.

4. Draft Policy Amendment Public Review

When announcing the proposed amended Policy for public review, the original Policy shall be clearly indicated, and a statement of the implications the modifications might have on existing ZooBank registrations, and associated nomenclatural stability shall also be provided.

5. Draft Policy Amendment Recommendation

If the ZBC votes in favor of recommending the Draft Policy Amendment to the ICZN, the recommendation shall also include a statement of the implications the modifications might have on existing ZooBank registrations, and associated nomenclatural stability. Upon ratification of the Policy Amendment, the Amended Policy will receive an appropriate Policy Number revision (i.e. the original Policy Number with an incrementing decimal suffix representing revision number of the Policy) and revised Ratification Date. The Amended Policy shall take effect on its designated Effective Date, when the previous Policy will be deemed no longer to be in effect.

Contributions to the Discussion on Electronic Publication VI

Louise Allcock

*Martin Ryan Marine Science Institute, National University of Ireland Galway,
University Road, Galway, Ireland (e-mail: louise.allcock@gmail.com)*

Andrew Polaszek

*Natural History Museum, Cromwell Road, London, SW7 5BD, U.K.
(e-mail: a.polaszek@nhm.ac.uk)*

As co-editors of *Journal of Natural History*, one of the leading publishers of taxonomy and nomenclatural acts in zoology, we would like to make a comment and recommendation regarding the acceptance of electronic-only publication of such acts. We fully support the Commission's pioneering work in proposing an amendment to the Code, as published in the *Bulletin of Zoological Nomenclature*, *Zootaxa* and several other journals in October 2008. We are in full agreement that electronic-only publication of such acts must be allowed following the adoption of this amendment. There is no question that in just a few years hard copy publication of *Journal of Natural History* will cease altogether, as is the case with several existing journals. We also agree that mandatory registration of all electronic-only published acts in the ZooBank register should be required before any such acts can be considered valid. As co-editors, we are more than willing to implement mandatory registration on all acts published in this journal. We would hope that retrospective registration of all previous acts back to 1758 will follow shortly. We strongly support the adoption of this amendment and encourage rapid action to implement the amendment into the current Code.